



## UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/942,837	08/29/2001	Shawn R. Gettemy	PALM-3651	8549
7590                    02/10/2011			EXAMINER	
WAGNER, MURABITO & HAO LLP Third Floor Two North Market Street San Jose, CA 95113			PIZIALI, JEFFREY J	
		ART UNIT	PAPER NUMBER	
		2629		
		MAIL DATE	DELIVERY MODE	
		02/10/2011	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 09/942,837	<b>Applicant(s)</b> GETTEMY ET AL.
	<b>Examiner</b> Jeff Piziali	<b>Art Unit</b> 2629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 30 November 2010.
- 2a) This action is **FINAL**.      2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 100-130 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 100-130 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 30 June 2010 is/are: a) accepted or b) objected to by the Examiner.
 

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/06)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) Notice of Informal Patent Application
- 6) Other: \_\_\_\_\_

## DETAILED ACTION

### Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 100-130 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. Claim 100 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01.

An omitted structural cooperative relationship results from the claimed subject matter: "**a cover disposed above said digitizer and operable to enable said deformation of said digitizer responsive to a contact with said cover**" (lines 7-8).

It would be unclear to one having ordinary skill in the art what particular structural difference, if any, is intended to distinguish between "any cover" and "a cover operable to enable deformation of a digitizer."

4. Claim 100 recites the limitation "**said deformation**" (lines 7-8). There is insufficient antecedent basis for this limitation in the claim.

Art Unit: 2629

5. Claim 102 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01.

An omitted structural cooperative relationship results from the claimed subject matter: "**said cover is operable to deflect and cause said conductive polymer to contact said digitizing element to activate said digitizer**" (lines 3-4).

It would be unclear to one having ordinary skill in the art what particular structural difference, if any, is intended to distinguish between "any cover" and "a cover operable to deflect."

6. Claim 103 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01.

An omitted structural cooperative relationship results from the claimed subject matter: "**a plurality of electrodes and traces operable to register a point of contact when said conductive polymer makes contact with said digitizing element**" (lines 2-4).

It would be unclear to one having ordinary skill in the art what particular structural difference, if any, is intended to distinguish between "any electrodes and traces" and "electrodes and traces operable to register a point of contact."

7. Claim 106 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01.

An omitted structural cooperative relationship results from the claimed subject matter:  
**"said border is operable to conceal at least one component of said portable electronic device"**  
(lines 1-2).

It would be unclear to one having ordinary skill in the art what particular structure difference, if any, is intended to distinguish between "any cover" and "a cover operable to conceal at least one component."

8. Claim 106 recites the limitation "**at least one component of said portable electronic device**" (line 2). There is insufficient antecedent basis for this limitation in the claim.

It would be unclear to one having ordinary skill in the art what earlier recited "component(s)," if any, this limitation is intended to refer to.

9. Claim 108 recites the limitation "**said cover**" (line 2). There is insufficient antecedent basis for this limitation in the claim.

It would be unclear to one having ordinary skill in the art whether this limitation is intended to refer to the earlier recited "a cover" (claim 100, line 7) and/or "a second cover" (claim 108, line 2).

10. Claim 111 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01.

An omitted structural cooperative relationship results from the claimed subject matter: "**a digitizer disposed above said display device and operable to provide an input to said portable electronic device in response to a deformation of said digitizer**" (lines 5-7).

It would be unclear to one having ordinary skill in the art what particular structural difference, if any, is intended to distinguish between "any digitizer" and "a digitizer operable to provide an input."

An omitted structural cooperative relationship results from the claimed subject matter: "**said first cover is disposed above said digitizer and operable to enable said deformation of said digitizer responsive to a contact with said first cover**" (lines 8-10).

It would be unclear to one having ordinary skill in the art what particular structural difference, if any, is intended to distinguish between "any cover" and "a cover operable to enable deformation of a digitizer."

11. Claim 113 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01.

An omitted structural cooperative relationship results from the claimed subject matter:  
**"said first cover is operable to deflect and cause said conductive polymer to contact said digitizing element to activate said digitizer"** (lines 3-4).

It would be unclear to one having ordinary skill in the art what particular structural difference, if any, is intended to distinguish between "any cover" and "a cover operable to deflect."

12. Claim 114 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01.

An omitted structural cooperative relationship results from the claimed subject matter: **"a plurality of electrodes and traces operable to register a point of contact when said conductive polymer makes contact with said digitizing element"** (lines 2-4).

It would be unclear to one having ordinary skill in the art what particular structural difference, if any, is intended to distinguish between "any electrodes and traces" and "electrodes and traces operable to register a point of contact."

13. Claim 121 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01.

An omitted structural cooperative relationship results from the claimed subject matter: "**a digitizer disposed above said display device and operable to provide an input to said portable electronic device in response to a deformation of said digitizer**" (lines 7-9).

It would be unclear to one having ordinary skill in the art what particular structural difference, if any, is intended to distinguish between "any digitizer" and "a digitizer operable to provide an input."

An omitted structural cooperative relationship results from the claimed subject matter: "**said first cover is disposed above said digitizer and operable to enable said deformation of said digitizer responsive to a contact with said first cover**" (lines 10-12).

It would be unclear to one having ordinary skill in the art what particular structural difference, if any, is intended to distinguish between "any cover" and "a cover operable to enable deformation of a digitizer."

14. Claim 123 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01.

An omitted structural cooperative relationship results from the claimed subject matter: "**said first cover is operable to deflect and cause said conductive polymer to contact said digitizing element to activate said digitizer**" (lines 3-4).

It would be unclear to one having ordinary skill in the art what particular structural difference, if any, is intended to distinguish between "any cover" and "a cover operable to deflect."

15. Claim 124 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01.

An omitted structural cooperative relationship results from the claimed subject matter: "**a plurality of electrodes and traces operable to register a point of contact when said conductive polymer makes contact with said digitizing element**" (lines 2-4).

It would be unclear to one having ordinary skill in the art what particular structural difference, if any, is intended to distinguish between "any electrodes and traces" and "electrodes and traces operable to register a point of contact."

16. The remaining claims are rejected under 35 U.S.C. 112, second paragraph, as being dependent upon rejected base claims.

17. The claims are rejected under 35 U.S.C. 112, second paragraph, as being indefinite.

As a courtesy to the Applicant, the examiner has attempted to also make rejections over prior art -- based on the examiner's best guess interpretations of the invention that the Applicant is intending to claim.

However, the indefinite nature of the claimed subject matter naturally hinders the Office's ability to search and examine the application.

Any instantly distinguishing features and subject matter that the Applicant considers to be absent from the cited prior art is more than likely a result of the indefinite nature of the claims.

The Applicant is respectfully requested to correct the indefinite nature of the claims, which should going forward result in a more precise search and examination.

#### **Claim Rejections - 35 USC § 103**

18. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

19. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

20. Claims 100, 101, 104-106, 108-112, 115, 116, 118-122, 125, 126, and 128-130 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Adair (US 5,812,188 A)** in view of

**Logan et al (US 4,821,029 A)**, the instant Application's Admitted Prior Art (AAPA), and  
**Nakanishi et al (US 6,590,622 B1)**.

Please note: Claim order has been rearranged in the Office action to better reflect the order of specificity of the pending claims (going from broadest to more specific claim language).

Regarding claim 111, **Adair** discloses a portable electronic device [e.g., Fig. 4] comprising:

a housing comprising a first cover [e.g., Fig. 4: 59];

a display device [e.g., Fig. 4: 54] disposed in said housing,

wherein said display device comprises a display surface [e.g., Fig. 4: top surface of 54] and a first side [e.g., Fig. 4: left-side surface of 54];

a digitizer [e.g., Fig. 4: 56] disposed above said display device and operable to provide an input to said portable electronic device in response to a deformation of said digitizer; and

wherein said first cover is disposed above said digitizer and operable to enable said deformation of said digitizer responsive to a contact with said first cover,

wherein a first portion [e.g., Fig. 4: top portion of 59] of said first cover overlaps said display surface,

wherein a second portion [e.g., Fig. 4: left-side portion of 59] of said first cover overlaps said first side of said display device, and

wherein said first cover comprises at least one bend [e.g., Fig. 4: 59 at 42] joining said first and second portions (see the entire document, including Column 5, Line 59 - Column 6, Line 37).

Should it be shown that **Adair** discloses the subject matter of a digitizer disposed above said display device, as instantly claimed, with insufficient specificity:

**Logan** discloses a portable electronic device [e.g., Fig. 1] comprising:

a display device [e.g., Fig. 1: 1']; and

a digitizer [e.g., Fig. 1"] disposed above said display device and operable to provide an input to said portable electronic device in response to a deformation of said digitizer (see the entire document, including Column 3, Lines 30-60).

**Adair** and **Logan** are analogous art, because they are from the shared inventive field of touch screen devices.

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to apply **Logan's** digitizer arrangement and control techniques to **Adair's** device, so as to provide a flexible touch screen process and system that incorporates, together with the appropriate processing, a self-sufficiency of control to the touch screen.

Should it be shown that even **Logan** discloses the subject matter of a digitizer disposed above said display device, as instantly claimed, with insufficient specificity:

The **AAPA** discloses a portable electronic device [e.g., Fig. 1] comprising:

a housing comprising a first cover [e.g., Fig. 1: 105, 110];

a display device [e.g., Fig. 1: 140] disposed in said housing,

wherein said display device comprises a display surface [e.g., Fig. 1: top surface of 140] and a first side [e.g., Fig. 1: left-side surface of 140];

a digitizer [e.g., Fig. 1: 120, 130, 170] disposed above said display device and operable to provide an input to said portable electronic device in response to a deformation of said digitizer; and

wherein said first cover is disposed above said digitizer and operable to enable said deformation of said digitizer responsive to a contact with said first cover,

wherein a first portion [e.g., Fig. 1: 110] of said first cover overlaps said display surface, wherein a second portion [e.g., Fig. 1: 105] of said first cover overlaps said first side of said display device, and

wherein said first cover comprises at least one bend [e.g., Fig. 1: 105's bend] joining said first and second portions (see the entire document, including Fig. 2: Page 1, Line 11 - Page 5, Line 21).

**Adair, Logan, and the AAPA** are analogous art, because they are from the shared inventive field of touch screen devices.

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to apply the AAPA's digitizer arrangement and control techniques to Adair's device, so as to make use of a typical, well known, and commonly understood resistive digitizer mechanism.

In one embodiment, **Adair** states, "As best seen in FIG. 4a, monitor module 50 is completely encapsulated within a sealing material 59 such as acrylic so that the monitor module is isolated from the sterile field of the operating room" (see Column 6, Lines 7-11).

**Adair** discloses, "The enclosure may be flexible or rigid... In some embodiments, the body is flexible" (see the Abstract). **Adair** also claims, "a sterile enclosure made of a flexible material substantially impervious to liquid and gas" (see claim 1).

Therefore, **Adair's** flexible cover will be operable to enable deformation of the underlying digitizer, as instantly claimed.

However, should it be shown that **Adair** discloses the subject matter of a cover operable to enable deformation of the digitizer, as instantly claimed, with insufficient specificity:

**Nakanishi** discloses a portable electronic device (e.g., see Column 7, Line 65) comprising:

a housing comprising a first cover [e.g., Fig. 1: movable/deformable/pressable acrylic resin layer 19];

a display device (e.g., see Column 1, Lines 5-15) disposed in said housing,

wherein said display device comprises a display surface and a first side;

a digitizer [e.g., Fig. 1: movable conductor 18 + fixed conductor 14] disposed above said display device and operable to provide an input to said portable electronic device in response to a deformation of said digitizer (e.g., see Column 1, Lines 43-57); and

wherein said first cover is disposed above said digitizer and operable to enable said deformation of said digitizer responsive to a contact with said first cover (e.g., see Column 1, Lines 43-57 and Column 3, Lines 50-52),

wherein a first portion of said first cover overlaps said display surface (see the entire document, including Column 1, Line 5 - Column 2, Line 46 and Column 3, Line 10 - Column 8, Line 10).

**Adair, Logan, the AAPA, and Nakanishi** are analogous art, because they are from the shared inventive field of touch screen devices.

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to use **Nakanishi's** flexibly deformable resin layer to form **Adair's** cover, so as to protect the underlying digitizer from damage due to finger and/or stylus presses (e.g., see **Nakanishi**: Column 3, Line 44).

Regarding claim 112, **Adair** discloses said first cover further comprises a thermoplastic film [e.g., Fig. 4: 59] and a supporting structure [e.g., Fig. 4: 42] coupled to said thermoplastic film (e.g., see Column 5, Line 59 - Column 6, Line 37).

Regarding claim 115, **Adair** discloses said first cover further comprises a border [e.g., Fig. 4: 59] (e.g., see Column 5, Line 59 - Column 6, Line 37).

Regarding claim 116, the **AAPA** discloses said digitizer comprises electrical traces [e.g., Fig. 1; 180] and circuits [e.g., Fig. 1; 160] along a periphery, and wherein a border [e.g., Fig. 1; 105] overlaps said electrical traces and circuits (e.g., see Fig. 2; Page 1, Line 11 - Page 5, Line 21).

Regarding claim 118, **Adair** discloses said housing further comprises a second cover [e.g., Fig. 4: 44], and wherein said first cover and said second cover enclose said display device and said digitizer (e.g., see Column 5, Line 59 - Column 6, Line 37).

Regarding claim 119, **Adair** discloses said first cover comprises at least one transparent portion (e.g., see Column 5, Line 59 - Column 6, Line 37).

Regarding claim 120, the **AAPA** discloses said digitizer comprises a resistive digitizer (e.g., see Figs. 1, 2; Page 1, Line 11 - Page 5, Line 21).

Regarding claim 121, this claim is rejected by the reasoning applied in rejecting claim 111; furthermore, **Logan** discloses a processor [e.g., Fig. 1: 5]; and a memory [e.g., Fig. 1: 5] (e.g., see Column 3, Lines 30-60).

Regarding claim 122, this claim is rejected by the reasoning applied in rejecting claim 112.

Regarding claim 125, this claim is rejected by the reasoning applied in rejecting claim 115.

Regarding claim 126, this claim is rejected by the reasoning applied in rejecting claim 116.

Regarding claim 128, this claim is rejected by the reasoning applied in rejecting claim 118.

Regarding claim 129, this claim is rejected by the reasoning applied in rejecting claim 119.

Regarding claim 130, this claim is rejected by the reasoning applied in rejecting claim 120.

Regarding claim 100, this claim is rejected by the reasoning applied in rejecting claims 111 and 121; furthermore, **Adair** discloses a cover [e.g., Fig. 4: 59] (e.g., see Column 5, Line 59 - Column 6, Line 37).

Regarding claim 101, this claim is rejected by the reasoning applied in rejecting claim 112.

Regarding claim 104, this claim is rejected by the reasoning applied in rejecting claim 115.

Regarding claim 105, this claim is rejected by the reasoning applied in rejecting claim 116.

Regarding claim 106, the **AAPA** discloses said border [e.g., Fig. 2: 210] is operable to conceal at least one component [e.g., Fig. 2: 160] of said portable electronic device (e.g., see Figs. 1, 2; Page 1, Line 11 - Page 5, Line 21).

Regarding claim 108, this claim is rejected by the reasoning applied in rejecting claim 118.

Regarding claim 109, this claim is rejected by the reasoning applied in rejecting claim 119.

Regarding claim 110, this claim is rejected by the reasoning applied in rejecting claim 120.

21. Claims 102, 103, 113, 114, 123, and 124 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Adair (US 5,812,188 A), Logan et al (US 4,821,029 A)**, the instant

**Application's Admitted Prior Art (AAPA), and Nakanishi et al (US 6,590,622 B1) as applied respectively to claims 100, 111, and 121 above, and further in view of Conroy et al (US 5,686,705 A).**

Regarding claim 113, **Adair, Logan, and the AAPA** do not appear to expressly disclose a conductive polymer, as instantly claimed.

However, the **AAPA** discloses said digitizer comprises a conductive film made of indium tin oxide [e.g., Fig. 1; 120] disposed above a digitizing element [e.g., Fig. 1; 130] (e.g., see Fig. 2; Page 3, Line 11 - Page 5, Line 11).

Moreover, **Conroy** discloses substituting conductive digitizer wires with a conductive polymer composite, such as conductive plastic (see the entire document, including Column 3, Lines 9-30, Column 4, Lines 21-32, Column 5, Line 55 - Column 6, Line 10, and Column 8, Lines 37-40).

**Adair, Logan, the AAPA, and Conroy** are analogous art, because they are from the shared inventive field of touch screen devices.

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to use **Conroy's** conductive polymer in place of the **AAPA's** conductive film, resulting in said first cover being operable to deflect and cause said conductive polymer to contact said digitizing element to activate said digitizer, so as to provide a rugged and reliable electronic device.

Regarding claim 114, the **AAPA** discloses said digitizer further comprises a plurality of electrodes [e.g., Fig. 1; 160] and traces [e.g., Fig. 1; 180] operable to register a point of contact when said conductor makes contact with said digitizing element (e.g., Page 3, Line 11 - Page 5, Line 11).

Regarding claim 123, this claim is rejected by the reasoning applied in rejecting claim 113.

Regarding claim 124, this claim is rejected by the reasoning applied in rejecting claim 114.

Regarding claim 102, this claim is rejected by the reasoning applied in rejecting claim 113.

Regarding claim 103, this claim is rejected by the reasoning applied in rejecting claim 114.

22. Claims 107, 117, and 127 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Adair (US 5,812,188 A)**, **Logan et al (US 4,821,029 A)**, the instant Application's **Admitted Prior Art (AAPA)**, and **Nakanishi et al (US 6,590,622 B1)** as applied respectively to claims 100, 111, and 121 above, and further in view of **Barkan et al (US 3,757,322 A)**.

Regarding claim 107, **Adair** discloses a plurality of buttons [e.g., Fig. 4: 56] (e.g., see Column 5, Line 59 - Column 6, Line 37).

And the **AAPA** discloses said cover comprises indentations [e.g., Fig. 1; 150, icon sheet] to indicate button functions (e.g., see Page 3, Line 11 - Page 5, Line 11).

However, should it be shown that **Adair**, **Logan**, and the **AAPA** do not disclose button indentations, as instantly claimed:

**Barkan** discloses a plurality of buttons [e.g., Fig. 3: 46]; and wherein a first cover [e.g., Fig. 3: 58] comprises indentations [e.g., Fig. 3: formed between 60, 62],

wherein each of said indentations corresponds to a respective button of said plurality of buttons (see the entire document, including Fig. 5; Column 14, Line 65 - Column 18, Line 65).

**Adair**, **Logan**, the **AAPA**, and **Barkan** are analogous art, because they are from the shared inventive field of touch screen devices.

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to use **Barkan's** button indentations to correspond with **Adair's** buttons, so as to provide a tactile feel to the user for distinguishing between adjacent buttons.

Regarding claim 127, this claim is rejected by the reasoning applied in rejecting claim 117.

Regarding claim 107, this claim is rejected by the reasoning applied in rejecting claim 117.

### **Double Patenting**

23. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

24. Claims 100, 101, 104-106, 108-112, 115, 116, 118-122, 125, 126, and 128-130 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-18 of **U.S. Patent No. 6,992,659** in view of **Adair (US 5,812,188 A)**, **Logan et al (US 4,821,029 A)**, the instant **Application's Admitted Prior Art (AAPA)**, and **Nakanishi et al (US 6,590,622 B1)**.

Regarding claim 111, **U.S. Patent No. 6,992,659** discloses a portable electronic device comprising:

a housing comprising a first cover [e.g., single piece device enclosure];  
a display device [e.g., flat panel display screen] disposed in said housing,  
wherein said display device comprises a display surface and a first side,  
a digitizer [e.g., optical sensor] disposed above said display device and operable to provide an input to said portable electronic device in response to a deformation of said digitizer; and

wherein said first cover is disposed above said digitizer and operable to enable said deformation of said digitizer responsive to a contact with said first cover,  
wherein a first portion of said first cover overlaps said display surface,

wherein a second portion of said first cover overlaps said first side of said display device,  
and

wherein said first cover comprises at least one bend joining said first and second portions  
(e.g., see claims 1-18).

Should it be shown that **U.S. Patent No. 6,992,659** discloses a digitizer, as instantly  
claimed, with insufficient specificity:

**Adair** discloses a portable electronic device [e.g., Fig. 4] comprising:  
a housing comprising a first cover [e.g., Fig. 4: 59];  
a display device [e.g., Fig. 4: 54] disposed in said housing,  
wherein said display device comprises a display surface [e.g., Fig. 4: top surface of 54]  
and a first side [e.g., Fig. 4: left-side surface of 54],  
a digitizer [e.g., Fig. 4: 56] disposed above said display device and operable to provide  
an input to said portable electronic device in response to a deformation of said digitizer; and  
wherein said first cover is disposed above said digitizer and operable to enable said  
deformation of said digitizer responsive to a contact with said first cover,  
wherein a first portion [e.g., Fig. 4: top portion of 59] of said first cover overlaps said  
display surface,  
wherein a second portion [e.g., Fig. 4: left-side portion of 59] of said first cover overlaps  
said first side of said display device, and

wherein said first cover comprises at least one bend [e.g., Fig. 4: 59 at 42] joining said first and second portions (see the entire document, including Column 5, Line 59 - Column 6, Line 37).

**U.S. Patent No. 6,992,659** and **Adair** are analogous art, because they are from the shared inventive field of touch screen devices.

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to apply **Adair's** digitizer arrangement and control techniques to **U.S. Patent No. 6,992,659**'s device, so as to provide touch sensitive endoscopic functionalities.

Should it be shown that **Adair** discloses the subject matter of a digitizer disposed above said display device, as instantly claimed, with insufficient specificity:

**Logan** discloses a portable electronic device [e.g., Fig. 1] comprising:  
a display device [e.g., Fig. 1: 1']; and  
a digitizer [e.g., Fig. 1"] disposed above said display device and operable to provide an input to said portable electronic device in response to a deformation of said digitizer (see the entire document, including Column 3, Lines 30-60).

**U.S. Patent No. 6,992,659**, **Adair** and **Logan** are analogous art, because they are from the shared inventive field of touch screen devices.

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to apply **Logan's** digitizer arrangement and control techniques to **Adair's** device, so

as to provide a flexible touch screen process and system that incorporates, together with the appropriate processing, a self-sufficiency of control to the touch screen.

Should it be shown that even **Logan** discloses the subject matter of a digitizer disposed above said display device, as instantly claimed, with insufficient specificity:

The **AAPA** discloses a portable electronic device [e.g., Fig. 1] comprising:  
a housing comprising a first cover [e.g., Fig. 1: 105, 110];  
a display device [e.g., Fig. 1: 140] disposed in said housing,  
wherein said display device comprises a display surface [e.g., Fig. 1: top surface of 140]  
and a first side [e.g., Fig. 1: left-side surface of 140],

a digitizer [e.g., Fig. 1: 120, 130, 170] disposed above said display device and operable  
to provide an input to said portable electronic device in response to a deformation of said  
digitizer; and

wherein said first cover is disposed above said digitizer and operable to enable said  
deformation of said digitizer responsive to a contact with said first cover,

wherein a first portion [e.g., Fig. 1: 110] of said first cover overlaps said display surface,  
wherein a second portion [e.g., Fig. 1: 105] of said first cover overlaps said first side of  
said display device, and

wherein said first cover comprises at least one bend [e.g., Fig. 1: 105's bend] joining said  
first and second portions (see the entire document, including Fig. 2; Page 1, Line 11 - Page 5,  
Line 21).

**U.S. Patent No. 6,992,659, Adair, Logan, and the AAPA** are analogous art, because they are from the shared inventive field of touch screen devices.

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to apply the AAPA's digitizer arrangement and control techniques to **Adair's** device, so as to make use of a typical, well known, and commonly understood resistive digitizer mechanism.

In one embodiment, **Adair** states, "As best seen in FIG. 4a, monitor module 50 is completely encapsulated within a sealing material 59 such as acrylic so that the monitor module is isolated from the sterile field of the operating room" (see Column 6, Lines 7-11).

**Adair** discloses, "The enclosure may be flexible or rigid... In some embodiments, the body is flexible" (see the Abstract). **Adair** also claims, "a sterile enclosure made of a flexible material substantially impervious to liquid and gas" (see claim 1).

Therefore, **Adair's** flexible cover will be operable to enable deformation of the underlying digitizer, as instantly claimed.

However, should it be shown that **Adair** discloses the subject matter of a cover operable to enable deformation of the digitizer, as instantly claimed, with insufficient specificity:

**Nakanishi** discloses a portable electronic device (e.g., see Column 7, Line 65) comprising:

a housing comprising a first cover [e.g., Fig. 1: movable/deformable/pressable acrylic resin layer 19];

a display device (e.g., see Column 1, Lines 5-15) disposed in said housing,  
wherein said display device comprises a display surface and a first side,  
a digitizer [e.g., Fig. 1: movable conductor 18 + fixed conductor 14] disposed above said  
display device and operable to provide an input to said portable electronic device in response to a  
deformation of said digitizer (e.g., see Column 1, Lines 43-57); and

wherein said first cover is disposed above said digitizer and operable to enable said  
deformation of said digitizer responsive to a contact with said first cover (e.g., see Column 1,  
Lines 43-57 and Column 3, Lines 50-52),

wherein a first portion of said first cover overlaps said display surface (see the entire  
document, including Column 1, Line 5 - Column 2, Line 46 and Column 3, Line 10 - Column 8,  
Line 10).

**U.S. Patent No. 6,992,659, Adair, Logan, the AAPA, and Nakanishi** are analogous art,  
because they are from the shared inventive field of touch screen devices.

Therefore, it would have been obvious to one having ordinary skill in the art at the time  
of invention to use **Nakanishi's** flexibly deformable resin layer to form **Adair's** cover, so as to  
protect the underlying digitizer from damage due to finger and/or stylus presses (e.g., see  
**Nakanishi:** Column 3, Line 44).

Regarding claim 112, **Adair** discloses said first cover further comprises  
a thermoplastic film [e.g., Fig. 4: 59] and

a supporting structure [e.g., Fig. 4: 42] coupled to said thermoplastic film (e.g., see Column 5, Line 59 - Column 6, Line 37).

Regarding claim 115, **Adair** discloses said first cover further comprises a border [e.g., Fig. 4: 59] (e.g., see Column 5, Line 59 - Column 6, Line 37).

Regarding claim 116, the **AAPA** discloses said digitizer comprises electrical traces [e.g., Fig. 1; 180] and circuits [e.g., Fig. 1; 160] along a periphery, and wherein a border [e.g., Fig. 1; 105] overlaps said electrical traces and circuits (e.g., see Fig. 2; Page 1, Line 11 - Page 5, Line 21).

Regarding claim 118, **Adair** discloses said housing further comprises a second cover [e.g., Fig. 4: 44], and wherein said first cover and said second cover enclose said display device and said digitizer (e.g., see Column 5, Line 59 - Column 6, Line 37).

Regarding claim 119, **Adair** discloses said first cover comprises at least one transparent portion (e.g., see Column 5, Line 59 - Column 6, Line 37).

Regarding claim 120, the **AAPA** discloses said digitizer comprises a resistive digitizer (e.g., see Figs. 1, 2; Page 1, Line 11 - Page 5, Line 21).

Regarding claim 121, this claim is rejected by the reasoning applied in rejecting claim 111; furthermore, **Logan** discloses a processor [e.g., Fig. 1: 5]; and a memory [e.g., Fig. 1: 5] (e.g., see Column 3, Lines 30-60).

Regarding claim 122, this claim is rejected by the reasoning applied in rejecting claim 112.

Regarding claim 125, this claim is rejected by the reasoning applied in rejecting claim 115.

Regarding claim 126, this claim is rejected by the reasoning applied in rejecting claim 116.

Regarding claim 128, this claim is rejected by the reasoning applied in rejecting claim 118.

Regarding claim 129, this claim is rejected by the reasoning applied in rejecting claim 119.

Regarding claim 130, this claim is rejected by the reasoning applied in rejecting claim 120.

Regarding claim 100, this claim is rejected by the reasoning applied in rejecting claims 111 and 121; furthermore, **Adair** discloses a cover [e.g., Fig. 4: 59] (e.g., see Column 5, Line 59 - Column 6, Line 37).

Regarding claim 101, this claim is rejected by the reasoning applied in rejecting claim 112.

Regarding claim 104, this claim is rejected by the reasoning applied in rejecting claim 115.

Regarding claim 105, this claim is rejected by the reasoning applied in rejecting claim 116.

Regarding claim 106, the **AAPA** discloses said border [e.g., Fig. 2: 210] is operable to conceal at least one component [e.g., Fig. 2: 160] of said portable electronic device (e.g., see Figs. 1, 2; Page 1, Line 11 - Page 5, Line 21).

Regarding claim 108, this claim is rejected by the reasoning applied in rejecting claim 118.

Regarding claim 109, this claim is rejected by the reasoning applied in rejecting claim 119.

Regarding claim 110, this claim is rejected by the reasoning applied in rejecting claim 120.

25. Claims 102, 103, 113, 114, 123, and 124 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-18 of **U.S. Patent No. 6,992,659** in view of **Adair (US 5,812,188 A)**, **Logan et al (US 4,821,029 A)**, the instant **Application's Admitted Prior Art (AAPA)**, **Nakanishi et al (US 6,590,622 B1)**, and **Conroy et al (US 5,686,705 A)**.

Regarding claim 113, **U.S. Patent No. 6,992,659**, **Adair**, **Logan**, the **AAPA**, and **Nakanishi** do not appear to expressly disclose a conductive polymer, as instantly claimed.

However, the **AAPA** discloses said digitizer comprises a conductive film made of indium tin oxide [e.g., Fig. 1; 120] disposed above a digitizing element [e.g., Fig. 1; 130] (e.g., see Fig. 2; Page 3, Line 11 - Page 5, Line 11).

Moreover, **Conroy** discloses substituting conductive digitizer wires with a conductive polymer composite, such as conductive plastic (see the entire document, including Column 3, Lines 9-30, Column 4, Lines 21-32, Column 5, Line 55 - Column 6, Line 10, and Column 8, Lines 37-40).

**U.S. Patent No. 6,992,659**, **Adair**, **Logan**, the **AAPA**, **Nakanishi**, and **Conroy** are analogous art, because they are from the shared inventive field of touch screen devices.

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to use **Conroy's** conductive polymer in place of the **AAPA's** conductive film, resulting in said first cover being operable to deflect and cause said conductive polymer to contact said digitizing element to activate said digitizer, so as to provide a rugged and reliable electronic device.

Regarding claim 114, the **AAPA** discloses said digitizer further comprises a plurality of electrodes [e.g., Fig. 1; 160] and traces [e.g., Fig. 1; 180] operable to register a point of contact when said conductor makes contact with said digitizing element (e.g., Page 3, Line 11 - Page 5, Line 11).

Regarding claim 123, this claim is rejected by the reasoning applied in rejecting claim 113.

Regarding claim 124, this claim is rejected by the reasoning applied in rejecting claim 114.

Regarding claim 102, this claim is rejected by the reasoning applied in rejecting claim 113.

Regarding claim 103, this claim is rejected by the reasoning applied in rejecting claim 114.

26. Claims 107, 117, and 127 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-18 of **U.S. Patent No. 6,992,659** in view of **Adair (US 5,812,188 A)**, **Logan et al (US 4,821,029 A)**, the instant **Application's Admitted Prior Art (AAPA)**, **Nakanishi et al (US 6,590,622 B1)**, and **Barkan et al (US 3,757,322 A)**.

Regarding claim 117, **Adair** discloses a plurality of buttons [e.g., Fig. 4: 56] (e.g., see Column 5, Line 59 - Column 6, Line 37).

And the **AAPA** discloses said cover comprises indentations [e.g., Fig. 1; 150, icon sheet] to indicate button functions (e.g., see Page 3, Line 11 - Page 5, Line 11).

However, should it be shown that **Adair**, **Logan**, and the **AAPA** do not disclose button indentations, as instantly claimed:

**Barkan** discloses a plurality of buttons [e.g., Fig. 3: 46]; and wherein a first cover [e.g., Fig. 3: 58] comprises indentations [e.g., Fig. 3: formed between 60, 62],

wherein each of said indentations corresponds to a respective button of said plurality of buttons (see the entire document, including Fig. 5; Column 14, Line 65 - Column 18, Line 65).

**U.S. Patent No. 6,992,659**, **Adair**, **Logan**, the **AAPA**, **Nakanishi**, and **Barkan** are analogous art, because they are from the shared inventive field of touch screen devices.

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to use **Barkan's** button indentations to correspond with **Adair's** buttons, so as to provide a tactile feel to the user for distinguishing between adjacent buttons.

Regarding claim 127, this claim is rejected by the reasoning applied in rejecting claim 117.

Regarding claim 107, this claim is rejected by the reasoning applied in rejecting claim 117.

27. Claims 100, 101, 104-112, 115-122, and 125-130 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-33 of **U.S. Patent No. 7,348,964** in view of **Adair (US 5,812,188 A)**, **Logan et al (US 4,821,029 A)**, the instant **Application's Admitted Prior Art (AAPA)**, and **Nakanishi et al (US 6,590,622 B1)**.

Regarding claim 111, **U.S. Patent No. 7,348,964** discloses a portable electronic device comprising:

- a housing comprising a first cover [e.g., single-piece bezel-less top cover];
- a display device [e.g., liquid crystal display] disposed in said housing,
- wherein said display device comprises a display surface and a first side,

a digitizer [e.g., pressure activated sensors] disposed above said display device and operable to provide an input to said portable electronic device in response to a deformation of said digitizer; and

wherein said first cover is disposed above said digitizer and operable to enable said deformation of said digitizer responsive to a contact with said first cover,

wherein a first portion of said first cover overlaps said display surface,

wherein a second portion of said first cover overlaps said first side of said display device, and

wherein said first cover comprises at least one bend joining said first and second portions (e.g., see claims 1-33).

Should it be shown that **U.S. Patent No. 7,348,964** discloses a digitizer, as instantly claimed, with insufficient specificity:

**Adair** discloses a portable electronic device [e.g., Fig. 4] comprising:

a housing comprising a first cover [e.g., Fig. 4: 59];

a display device [e.g., Fig. 4: 54] disposed in said housing,

wherein said display device comprises a display surface [e.g., Fig. 4: top surface of 54] and a first side [e.g., Fig. 4: left-side surface of 54],

a digitizer [e.g., Fig. 4: 56] disposed above said display device and operable to provide an input to said portable electronic device in response to a deformation of said digitizer; and

wherein said first cover is disposed above said digitizer and operable to enable said deformation of said digitizer responsive to a contact with said first cover,

wherein a first portion [e.g., Fig. 4: top portion of 59] of said first cover overlaps said display surface,

wherein a second portion [e.g., Fig. 4: left-side portion of 59] of said first cover overlaps said first side of said display device, and

wherein said first cover comprises at least one bend [e.g., Fig. 4: 59 at 42] joining said first and second portions (see the entire document, including Column 5, Line 59 - Column 6, Line 37).

**U.S. Patent No. 7,348,964** and **Adair** are analogous art, because they are from the shared inventive field of touch screen devices.

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to apply **Adair's** digitizer arrangement and control techniques to **U.S. Patent No. 7,348,964's** device, so as to provide touch sensitive endoscopic functionalities.

Should it be shown that **Adair** discloses the subject matter of a digitizer disposed above said display device, as instantly claimed, with insufficient specificity:

**Logan** discloses a portable electronic device [e.g., Fig. 1] comprising:  
a display device [e.g., Fig. 1: 1']; and

a digitizer [e.g., Fig. 1"] disposed above said display device and operable to provide an input to said portable electronic device in response to a deformation of said digitizer (see the entire document, including Column 3, Lines 30-60).

**U.S. Patent No. 7,348,964, Adair** and **Logan** are analogous art, because they are from the shared inventive field of touch screen devices.

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to apply **Logan's** digitizer arrangement and control techniques to **Adair's** device, so as to provide a flexible touch screen process and system that incorporates, together with the appropriate processing, a self-sufficiency of control to the touch screen.

Should it be shown that even **Logan** discloses the subject matter of a digitizer disposed above said display device, as instantly claimed, with insufficient specificity:

The **AAPA** discloses a portable electronic device [e.g., Fig. 1] comprising:  
a housing comprising a first cover [e.g., Fig. 1: 105, 110];  
a display device [e.g., Fig. 1: 140] disposed in said housing,  
wherein said display device comprises a display surface [e.g., Fig. 1: top surface of 140]  
and a first side [e.g., Fig. 1: left-side surface of 140],

a digitizer [e.g., Fig. 1: 120, 130, 170] disposed above said display device and operable to provide an input to said portable electronic device in response to a deformation of said digitizer; and

wherein said first cover is disposed above said digitizer and operable to enable said deformation of said digitizer responsive to a contact with said first cover,

wherein a first portion [e.g., Fig. 1: 110] of said first cover overlaps said display surface,

wherein a second portion [e.g., Fig. 1: 105] of said first cover overlaps said first side of said display device, and

wherein said first cover comprises at least one bend [e.g., Fig. 1: 105's bend] joining said first and second portions (see the entire document, including Fig. 2; Page 1, Line 11 - Page 5, Line 21).

**U.S. Patent No. 7,348,964, Adair, Logan, and the AAPA** are analogous art, because they are from the shared inventive field of touch screen devices.

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to apply the AAPA's digitizer arrangement and control techniques to Adair's device, so as to make use of a typical, well known, and commonly understood resistive digitizer mechanism.

In one embodiment, **Adair** states, "As best seen in FIG. 4a, monitor module 50 is completely encapsulated within a sealing material 59 such as acrylic so that the monitor module is isolated from the sterile field of the operating room" (see Column 6, Lines 7-11).

**Adair** discloses, "The enclosure may be flexible or rigid... In some embodiments, the body is flexible" (see the Abstract). **Adair** also claims, "a sterile enclosure made of a flexible material substantially impervious to liquid and gas" (see claim 1).

Therefore, **Adair's** flexible cover will be operable to enable deformation of the underlying digitizer, as instantly claimed.

However, should it be shown that **Adair** discloses the subject matter of a cover operable to enable deformation of the digitizer, as instantly claimed, with insufficient specificity:

**Nakanishi** discloses a portable electronic device (e.g., see Column 7, Line 65) comprising:

a housing comprising a first cover [e.g., Fig. 1: movable/deformable/pressable acrylic resin layer 19];

a display device (e.g., see Column 1, Lines 5-15) disposed in said housing,

wherein said display device comprises a display surface and a first side,

a digitizer [e.g., Fig. 1: movable conductor 18 + fixed conductor 14] disposed above said display device and operable to provide an input to said portable electronic device in response to a deformation of said digitizer (e.g., see Column 1, Lines 43-57); and

wherein said first cover is disposed above said digitizer and operable to enable said deformation of said digitizer responsive to a contact with said first cover (e.g., see Column 1, Lines 43-57 and Column 3, Lines 50-52),

wherein a first portion of said first cover overlaps said display surface (see the entire document, including Column 1, Line 5 - Column 2, Line 46 and Column 3, Line 10 - Column 8, Line 10).

**U.S. Patent No. 7,348,964, Adair, Logan, the AAPA, and Nakanishi** are analogous art, because they are from the shared inventive field of touch screen devices.

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to use **Nakanishi's** flexibly deformable resin layer to form **Adair's** cover, so as to protect the underlying digitizer from damage due to finger and/or stylus presses (e.g., see **Nakanishi**: Column 3, Line 44).

Regarding claim 112, **Adair** discloses said first cover further comprises a thermoplastic film [e.g., Fig. 4: 59] and a supporting structure [e.g., Fig. 4: 42] coupled to said thermoplastic film (e.g., see Column 5, Line 59 - Column 6, Line 37).

Regarding claim 115, **Adair** discloses said first cover further comprises a border [e.g., Fig. 4: 59] (e.g., see Column 5, Line 59 - Column 6, Line 37).

Regarding claim 116, the **AAPA** discloses said digitizer comprises electrical traces [e.g., Fig. 1; 180] and circuits [e.g., Fig. 1; 160] along a periphery, and wherein a border [e.g., Fig. 1; 105] overlaps said electrical traces and circuits (e.g., see Fig. 2; Page 1, Line 11 - Page 5, Line 21).

Regarding claim 117, **U.S. Patent No. 7,348,964** discloses a plurality of buttons; and wherein a first cover comprises indentations [e.g., indentations],

wherein each of said indentations corresponds to a respective button of said plurality of buttons (e.g., see claim 20).

Regarding claim 118, **Adair** discloses said housing further comprises a second cover [e.g., Fig. 4: 44], and wherein said first cover and said second cover enclose said display device and said digitizer (e.g., see Column 5, Line 59 - Column 6, Line 37).

Regarding claim 119, **Adair** discloses said first cover comprises at least one transparent portion (e.g., see Column 5, Line 59 - Column 6, Line 37).

Regarding claim 120, the **AAPA** discloses said digitizer comprises a resistive digitizer (e.g., see Figs. 1, 2; Page 1, Line 11 - Page 5, Line 21).

Regarding claim 121, this claim is rejected by the reasoning applied in rejecting claim 111; furthermore, **Logan** discloses a processor [e.g., Fig. 1: 5]; and a memory [e.g., Fig. 1: 5] (e.g., see Column 3, Lines 30-60).

Regarding claim 122, this claim is rejected by the reasoning applied in rejecting claim 112.

Regarding claim 125, this claim is rejected by the reasoning applied in rejecting claim 115.

Regarding claim 126, this claim is rejected by the reasoning applied in rejecting claim 116.

Regarding claim 127, this claim is rejected by the reasoning applied in rejecting claim 117.

Regarding claim 128, this claim is rejected by the reasoning applied in rejecting claim 118.

Regarding claim 129, this claim is rejected by the reasoning applied in rejecting claim 119.

Regarding claim 130, this claim is rejected by the reasoning applied in rejecting claim 120.

Regarding claim 100, this claim is rejected by the reasoning applied in rejecting claims 111 and 121; furthermore, **Adair** discloses a cover [e.g., Fig. 4: 59] (e.g., see Column 5, Line 59 - Column 6, Line 37).

Regarding claim 101, this claim is rejected by the reasoning applied in rejecting claim 112.

Regarding claim 104, this claim is rejected by the reasoning applied in rejecting claim 115.

Regarding claim 105, this claim is rejected by the reasoning applied in rejecting claim 116.

Regarding claim 106, the **AAPA** discloses said border [e.g., Fig. 2: 210] is operable to conceal at least one component [e.g., Fig. 2: 160] of said portable electronic device (e.g., see Figs. 1, 2; Page 1, Line 11 - Page 5, Line 21).

Regarding claim 107, this claim is rejected by the reasoning applied in rejecting claim 117.

Regarding claim 108, this claim is rejected by the reasoning applied in rejecting claim 118.

Regarding claim 109, this claim is rejected by the reasoning applied in rejecting claim 119.

Regarding claim 110, this claim is rejected by the reasoning applied in rejecting claim 120.

28. Claims 102, 103, 113, 114, 123, and 124 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-33 of **U.S. Patent No. 7,348,964** in view of **Adair (US 5,812,188 A)**, **Logan et al (US 4,821,029 A)**, the instant Application's Admitted Prior Art (AAPA), **Nakanishi et al (US 6,590,622 B1)**, and **Conroy et al (US 5,686,705 A)**.

Regarding claim 113, **U.S. Patent No. 7,348,964**, **Adair**, **Logan**, the AAPA, and **Nakanishi** do not appear to expressly disclose a conductive polymer, as instantly claimed.

However, the AAPA discloses said digitizer comprises a conductive film made of indium tin oxide [e.g., Fig. 1; 120] disposed above a digitizing element [e.g., Fig. 1; 130] (e.g., see Fig. 2; Page 3, Line 11 - Page 5, Line 11).

Moreover, **Conroy** discloses substituting conductive digitizer wires with a conductive polymer composite, such as conductive plastic (see the entire document, including Column 3, Lines 9-30, Column 4, Lines 21-32, Column 5, Line 55 - Column 6, Line 10, and Column 8, Lines 37-40).

**U.S. Patent No. 7,348,964**, **Adair**, **Logan**, AAPA, **Nakanishi**, and **Conroy** are analogous art, because they are from the shared inventive field of touch screen devices.

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to use **Conroy**'s conductive polymer in place of the AAPA's conductive film,

resulting in said first cover being operable to deflect and cause said conductive polymer to contact said digitizing element to activate said digitizer, so as to provide a rugged and reliable electronic device.

Regarding claim 114, the **AAPA** discloses said digitizer further comprises a plurality of electrodes [e.g., Fig. 1; 160] and traces [e.g., Fig. 1; 180] operable to register a point of contact when said conductor makes contact with said digitizing element (e.g., Page 3, Line 11 - Page 5, Line 11).

Regarding claim 123, this claim is rejected by the reasoning applied in rejecting claim 113.

Regarding claim 124, this claim is rejected by the reasoning applied in rejecting claim 114.

Regarding claim 102, this claim is rejected by the reasoning applied in rejecting claim 113.

Regarding claim 103, this claim is rejected by the reasoning applied in rejecting claim 114.

### Response to Arguments

29. Applicants' arguments filed on 30 November 2010 have been fully considered but they are not persuasive.

The Applicants contend, "**Adair** fails to teach or suggest the elements of 'a cover disposed above said digitizer and operable to enable said deformation of said digitizer responsive to a contact with said cover' as recited in independent Claim 100..."

Applicants understand **Adair** to teach a rigid enclosure for a monitor which does not allow deformation of a digitizer responsive to a contact with the cover as claimed (see Figure 4 and the Abstract of Adair)...

Although page 49 of the rejection suggests that **Adair** teaches a flexible enclosure, Applicants respectfully submit that any such teaching of **Adair** is with respect to an embodiment other than that shown in Figures 3 and 4 of **Adair**. For example, although **Adair** may teach a flexible enclosure with respect to a first embodiment (e.g., shown in Figures 1, 1a and 2 and described in line 66 of column 4 to line 58 of column 5) and also with respect to certain other embodiments (e.g., shown in Figures 5, 6, 7 and 8 and described in line 38 of column 6 to line 28 of column 8), **Adair** fails to teach or suggest a flexible enclosure with respect to the second embodiment (e.g., shown in Figures 3, 3(a), 4 and 4(a) and described in line 59 of column 5 to line 37 of column 6)" (see Pages 13-15 of the Response filed on 30 November 2010). However, the examiner respectfully disagrees.

The Applicants appear to concede that at least some embodiments (e.g., shown in Figures 1, 1a and 2 and described in line 66 of column 4 to line 58 of column 5 and also shown in Figures 5, 6, 7 and 8 and described in line 38 of column 6 to line 28 of column 8) of **Adair** fully read on the instantly claimed invention of "a cover disposed above said digitizer and operable to enable said deformation of said digitizer responsive to a contact with said cover".

The Applicants seem to only dispute that one embodiment (e.g., shown in Figures 3, 3(a), 4 and 4(a) and described in line 59 of column 5 to line 37 of column 6) of **Adair** may or may not teach "a flexible enclosure."

In response to Applicants' argument that the references fail to show certain features of Applicants' invention, it is noted that the features upon which applicant relies (i.e., "a flexible enclosure") are not recited in the rejected claims. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

In response to Applicants' argument that **Adair's** cover is not operable to enable deformation of the underlying digitizer, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

In one embodiment, **Adair** states, "As best seen in FIG. 4a, monitor module 50 is completely encapsulated within a sealing material 59 such as acrylic so that the monitor module is isolated from the sterile field of the operating room" (see Column 6, Lines 7-11).

**Adair** discloses, "The enclosure may be flexible or rigid... In some embodiments, the body is flexible" (see the Abstract). **Adair** also claims, "a sterile enclosure made of a flexible material substantially impervious to liquid and gas" (see claim 1).

Therefore, **Adair's** flexible cover will be operable to enable deformation of the underlying digitizer, as instantly claimed.

The Applicants also contend, "**Logan** and/or the Figures, either alone or in combination with **Adair**, also fail to teach or suggest the elements of 'a cover disposed above said digitizer and operable to enable said deformation of said digitizer responsive to a contact with said cover' as recited in independent Claim 100" (see Page 15 of the Response filed on 30 November 2010). However, the examiner respectfully disagrees.

Firstly, in response to Applicants' arguments against the references individually (e.g., **Logan** and/or the Figures fail to teach or suggest the elements of 'a cover disposed above said digitizer and operable to enable said deformation of said digitizer responsive to a contact with said cover'), one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Secondly, should it be shown that **Adair** discloses the subject matter of a digitizer disposed above said display device, as instantly claimed, with insufficient specificity:

**Logan** discloses a portable electronic device [e.g., Fig. 1] comprising:

a display device [e.g., Fig. 1: 1']; and

a digitizer [e.g., Fig. 1"] disposed above said display device and operable to provide an input to said portable electronic device in response to a deformation of said digitizer (see the entire document, including Column 3, Lines 30-60).

**Adair** and **Logan** are analogous art, because they are from the shared inventive field of touch screen devices.

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to apply **Logan's** digitizer arrangement and control techniques to **Adair's** device, so as to provide a flexible touch screen process and system that incorporates, together with the appropriate processing, a self-sufficiency of control to the touch screen.

Thirdly, should it be shown that even **Logan** discloses the subject matter of a digitizer disposed above said display device, as instantly claimed, with insufficient specificity:

The **AAPA** discloses a portable electronic device [e.g., Fig. 1] comprising:

a housing comprising a first cover [e.g., Fig. 1: 105, 110];

a display device [e.g., Fig. 1: 140] disposed in said housing,

wherein said display device comprises a display surface [e.g., Fig. 1: top surface of 140] and a first side [e.g., Fig. 1: left-side surface of 140],

a digitizer [e.g., Fig. 1: 120, 130, 170] disposed above said display device and operable to provide an input to said portable electronic device in response to a deformation of said digitizer; and

wherein said first cover is disposed above said digitizer and operable to enable said deformation of said digitizer responsive to a contact with said first cover,

wherein a first portion [e.g., Fig. 1: 110] of said first cover overlaps said display surface,

wherein a second portion [e.g., Fig. 1: 105] of said first cover overlaps said first side of said display device, and

wherein said first cover comprises at least one bend [e.g., Fig. 1: 105's bend] joining said first and second portions (see the entire document, including Fig. 2; Page 1, Line 11 - Page 5, Line 21).

**Adair, Logan**, and the **AAPA** are analogous art, because they are from the shared inventive field of touch screen devices.

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to apply the **AAPA**'s digitizer arrangement and control techniques to **Adair**'s device, so as to make use of a typical, well known, and commonly understood resistive digitizer mechanism.

The Applicants additionally contend, "**Nakanishi**, either alone or in combination with **Adair, Logan** and/or the Figures, also fails to teach or suggest the elements of 'a cover disposed above said digitizer and operable to enable said deformation of said digitizer responsive to a

Art Unit: 2629

contact with said cover' as recited in independent Claim 69. In contrast to the claimed embodiments, Applicants fail to find any teaching or suggestion in **Nakanishi** of a cover disposed above a digitizer which includes at least one bend as claimed. Additionally, although **Nakanishi** may teach a touch panel with hard coat layer 19, **Nakanishi** teaches that hard coat layer 19 does not include any bends (Figures 2 and 3). Therefore, Applicants respectfully submit that hard coat layer 19 as taught by **Nakanishi** is not analogous to a cover including at least one bend as claimed" (see Page 15 of the Response filed on 30 November 2010). However, the examiner respectfully disagrees.

Of first note, claim 69 was canceled by the Applicants.

Secondly, in response to Applicants' arguments against the references individually (e.g., **Nakanishi** teaches that hard coat layer 19 does not include any bends), one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Thirdly, should it be shown that **Adair** discloses the subject matter of a cover operable to enable deformation of the digitizer, as instantly claimed, with insufficient specificity: **Nakanishi** discloses a portable electronic device (e.g., see Column 7, Line 65) comprising:

a housing comprising a first cover [e.g., Fig. 1: movable/deformable/pressable acrylic resin layer 19];

a display device (e.g., see Column 1, Lines 5-15) disposed in said housing,

wherein said display device comprises a display surface and a first side,

a digitizer [e.g., Fig. 1: movable conductor 18 + fixed conductor 14] disposed above said display device and operable to provide an input to said portable electronic device in response to a deformation of said digitizer (e.g., see Column 1, Lines 43-57); and

wherein said first cover is disposed above said digitizer and operable to enable said deformation of said digitizer responsive to a contact with said first cover (e.g., see Column 1, Lines 43-57 and Column 3, Lines 50-52),

wherein a first portion of said first cover overlaps said display surface (see the entire document, including Column 1, Line 5 - Column 2, Line 46 and Column 3, Line 10 - Column 8, Line 10).

**Adair, Logan, the AAPA, and Nakanishi** are analogous art, because they are from the shared inventive field of touch screen devices.

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to use **Nakanishi's** flexibly deformable resin layer to form **Adair's** cover, so as to protect the underlying digitizer from damage due to finger and/or stylus presses (e.g., see **Nakanishi**: Column 3, Line 44).

Applicants' arguments with respect to claims 100-130 have been considered but are moot in view of the new ground(s) of rejection.

By such reasoning, rejection of the claims is deemed necessary, proper, and thereby maintained at this time.

### **Conclusion**

30. Applicants' amendment necessitated any new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeff Piziali whose telephone number is (571) 272-7678. The examiner can normally be reached on Monday - Friday (6:30AM - 3PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chanh Nguyen can be reached on (571) 272-7772. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jeff Piziali/  
Primary Examiner, Art Unit 2629  
8 February 2011